Final Progress Report

Annual Conference on Health IT & Analytics (2018-2020)

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Project Period: 04/01/2018 – 03/31/2021

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June 2021

This project was funded by the Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services, **Grant Award Number: 5R13HS025673**

Acknowledgments

This project represents a team effort in which many individuals made valuable contributions, in addition to the core team members. We gratefully acknowledge their assistance. The organizers would also like to thank our AHRQ project officers, and all the presenters, authors, reviewers, students, and participants who made the Conference on Health IT & Analytics such a success.

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Structured Abstract

Purpose: The Conference on Health IT & Analytics (CHITA) supports AHRQ efforts to produce and disseminate evidence about how the evolving digital healthcare ecosystem can best advance the quality, safety, and effectiveness of healthcare for patients and their families. CHITA does this through one primary and three sub-specific aims, including: the primary aim to formulate a health IT and analytics research agenda; sub-aim 1 to empower the next generation of health IT and analytics researchers; sub-aim 2 to foster a cross-disciplinary research community; and, sub-aim 4 to disseminate knowledge.

Scope*:* CHITA 2018-2020 solicited papers on a diverse range of topics surrounding health IT & analytics design, implementation, and use, in support of a learning health system, representing a variety of fields, such as health services research, informatics, medicine, computer science, public health, business, and economics.

Methods*:* CHITA is structured as a typical conference, with a mix of paper sessions, keynote presentations and panels, preceded by a doctoral consortium. It combines an academic conference with distinctive perspectives from industry, policy, and innovation domains. Communication is fostered between researchers, policymakers and practitioners, and disseminated widely. A research agenda identifying trends and knowledge gaps was produced.

Results: CHITA successfully met all of its stated aims. The research agenda and Proceedings of abstracts were disseminated broadly. Over 130 research papers were presented and debated, along with policymaker, patient, clinical and industry perspectives. CHITA created a transdisciplinary community where scholars across diverse fields had an opportunity to exchange perspectives.

Key Words: Health Information Technology; Analytics; Artificial Intelligence, Value; Quality; Transparency; Healthcare Operations; Information Systems

I. Purpose

The annual Conference on Health It & Analytics (CHITA) was created to promote interdisciplinary collaborations and communication in health IT and analytics research by providing a forum for knowledge gathering, sharing, and dissemination. In addition to building bridges across the academic disciplines engaged in health IT and analytics research, the conference includes health IT policymakers, funders, practitioners, patient advocates and industry professionals to help promote robust dialogue between these stakeholders. CHITA remains a unique offering to this research and practice community.

The specific aims of CHITA 2018-2020 were:

- Primary Aim: Formulate a health IT and analytics research agenda
- Sub-Aim 1: Empower the next generation of Health IT and analytics researchers
- Sub-Aim 2: Foster a cross-disciplinary research community
- Sub-Aim 3: Disseminate knowledge

II. Scope

CHITA was developed by the Center for Health Information and Decision Systems (CHIDS) at the University of Maryland, College Park and is hosted annually in Washington, DC. First hosted in 2010, each year CHITA includes over participants consisting of researchers, students, policymakers, practitioners as well as industry professionals. While principally attended by business and information systems researchers, a variety of academic fields were represented at CHITA, such as health services, medical informatics, public health, computer science, pharmaceutical science and economics. Each field delivered a unique vantage point and insights to the health IT and analytics research domain. CHITA provided a productive platform to integrate and cross-pollinate across the multiple disciplines.

Agencies and federal departments that participated in CHITA 2018-2020 included: Agency for Healthcare Research and Quality (AHRQ); Department of Health & Human Services CTO Office, Office of National Coordinator for Health IT (ONC); National Institutes of Health (NIH); Food and Drug Administration (FDA); Federal Trade Commission (FTC); Maryland Health Care Commission, National Library of Medicine (NLM) and the Centers for Medicare & Medicaid Services (CMS). Representatives from numerous health systems and commercial firms have also joined CHITA as speakers and participants (See Appendix A for participating organizations).

A vibrant and diverse mix of research sessions, keynote speakers, research and policy panels were delivered with of opportunity for networking and discussion across the two-day conference. We solicited papers on a wide range of topics, including, but not limited to, the following: on a wide range of topics including, but not limited to: Health IT's adoption and impact; Artificial Intelligence (AI) for healthcare; Healthcare analytics and big data; Health information exchange and interoperability; New IT-enabled organizational

forms and delivery models; mHealth and patient empowerment; and Quality transparency and public reporting. There is special interest this year in the following topics: AI applications for healthcare; Adoption and integration of analytics; Priority populations; Population health management; Cybersecurity; and, Behavior (both of providers and patients). Table 1 summarizes the program content from CHITA 2018-2020.

Table 1. CHITA Program Summary, 2018-2020

2018		
Sessions	**Panels**	**Keynotes**
• Impact of Analytics • Online Reviews • Impact of HIT I • HIT Outside the Clinic • Impact of HIT II • Prediction • Information Sharing • Big Data • Gamification	• Care Patterns • Online Communities • Security Panel Research Panel • Deep Learning • HIT, Analytics and Performance • Measurement	• Morning Keynote: Ginger Zhe Jin (Professor of Economics, University of Maryland and Chief Data Scientist, Hazel Analytics) • Government Leader Keynote: Jose Arrieta (Associate Deputy Assistant Secretary for Acquisition, U.S. Dept. of Health and Human Services) • Clinical Leader Keynote: Brian Jacobs, MD (Vice President, Chief Medical Information Officer and Chief Information Officer, Children's National) • Lunch Keynote: Avi Goldfarb (Ellison Professor of Marketing, Rotman School of Management, University of Toronto)
2019		
Sessions	**Panels**	**Keynotes**
• Patient Decision Making • Drug Abuse • Coordination and Use of Digital Information • Organization • AI • Social Media	• Role of Information Panel • AI Panel • Role of Information Panel • mHealth Panel • Frontline Panel • Data Security and Privacy Panel	• Policy Keynote: Pamela Peele (Chief Analytics Officer, UPMC Health Plan and UPMC Enterprises • Keynote: Susan Gregurick (Associate Director for Data Science and Director, NIH Office of Data Science Strategy) • Academic Keynote: Philip Resnik (Professor, Linguistics and Institute for Advanced Computer Studies, University of Maryland at College Park)
2020 (virtual)		
Sessions	**Panels**	**Keynotes**
• COVID 19 Impact • Nudging • Impact of Health IT • Platforms • AI and Humans • Advancing Methodologies • Health IT Capacities • Analytics for Clinical Decision	• COVID Panel • Machine Learning I Panel • Patient Behavior Panel • Data Security and Governance Panel • Machine Learning II Panel • Prescription Panel	• Industry Leader Keynote: Keith Dunleavy, MD, Chief Executive Officer and Chairman of the Board, Inovalon • Clinical Innovator Keynote: Daniel Durand, MD — Clinical Innovator Keynote, Chief Innovation Officer, LifeBridge Health • Academic Keynote, Joshua Gans, PhD, Professor of Strategic Management and holder of the Jeffrey S. Skoll Chair of Technical Innovation and Entrepreneurship at the Rotman School of Management, University of Toronto • Academic Keynote: Kartik Hosanagar, PhD, John C. Hower Professor of Technology and Digital Business and professor of Marketing at The Wharton School of the University of Pennsylvania

III. Methods

While CHITA typically occurs in October or November, planning and preparations for the following year commence immediately after the conference concludes. A call for papers is distributed broadly via a number of relevant communities during the May preceding CHITA (See Appendix B for the 2020 Call for papers). Extended abstracts are reviewed by a peer review committee with acceptance notifications in August.

Papers are solicited on a wide range of topics including, but not limited to: Health IT's adoption and impact; Artificial Intelligence (AI) for healthcare; Healthcare analytics and big data; Health information exchange and interoperability; New IT-enabled organizational forms and delivery models; mHealth and patient empowerment; and Quality transparency and public reporting. In 2020, there was special interest in the following topics: AI applications for healthcare; Adoption and integration of analytics; Priority populations; Population health management; Cybersecurity; Behavior (both of providers and patients).

CHITA usually occurs over two days, starting on Friday morning and ending on Saturday afternoon, with a pre-conference doctoral consortium on the preceding Thursday. In 2020, due to the virtual format of the conference, it was held over three half-days. CHITA is structured as a typical conference with a mix of paper sessions, keynote presentations, and panels. This structure supports one of the conference's key objectives: the integration of an academic conference with distinctive perspectives from clinical, policy, industry, and innovation domains – CHITA provided a forum for sharing and debate among these groups. CHITA strives for a deep scientific dive into the research and front-line perspectives of healthcare practitioner leaders and patients. Together, we translate research results into operational understanding and interesting questions. Together, furthering the research communities' perspective and methods.

CHITA employed multiple session types, including:

- **Regular Sessions -** A regular session lasts 75 minutes. Each presenter is given 15 minutes for their presentation, followed by 5 minutes of discussion/comments by the assigned paper discussant. At the end of each session, there are 15 minutes of Q&A open to all participants. CHITA discussants are encouraged to coordinate with presenting authors to discuss the paper before the conference and may arrange to receive advance copies of the presentation. Regular sessions offer the opportunity for researchers to receive feedback from the discussant and the audience as they further refine and improve their research.

- **Panels –** We scheduled at least two "hot topic" panels each year that include prominent representatives from different perspectives (e.g. industry, provider, policymaker and/or patient) to provide insights into emerging issues. There are research panel sessions too. These panels are academic research focused, and include brief presentations followed by moderator and audience questions. Where fitting, research panelists may be from industry or a policy organization to provide an alternative viewpoint to what might be presented by the academic researchers. Such a mix of participants promoted a rich discussion and was crucial to achieving CHITA's goal of cross-fertilization of perspectives.

- **Lightning Talks** – We also included brief talks, ~ 5 minutes per paper, to feature evolving research, promoting early/rapid dissemination and feedback for presenters to help hone their research.

- **Keynote Presentations** – Keynote presentations provided diverse and front-line perspectives from leading practitioners and scientists. We always scheduled at least one academic keynote and one practitioner keynote, and included coverage of important policy considerations from government organizations too.

All abstracts, slides decks and papers are made available to attendees and select conference presentation videos. A list of datasets used in the research presentations are made available via a data catalog posted publicly on the conference website. Abstracts are published in a Proceedings along with a CHITA-derived research agenda identifying knowledge gaps and evidence towards the design and use of safe and effective digital health solutions and analytics implementation and use. Awards are provided for Best Paper, Best Student-authored Paper, and Young Researcher Award (See Appendix C. Award Winners). Further dissemination activities are discussed in the Results section.

IV. Results

We conducted both formal and informal evaluations of the conference. In the formal evaluations, CHITA participant overwhelmingly evaluated the conference of high quality (Table 2). Each year participants provided unsolicited feedback during the Conference. The comments made have been extremely positive and appreciative of what has been accomplished. Every year, the program committee was responsive to the formal and informal feedback, and made adjustments to continually deliver a program that responds to the current needs of the academic, policy, and practitioner communities at the intersection of digital healthcare and analytics. Table 2 lists the overall conference ratings, demonstrating success, even given the experience of CHITA's first virtual event in 2020 given COVID-19 travel and gathering restrictions. Further results in the context of the specific aims are discussed below.

Table 2. Conference overall rating[1]

Conference Year	2018	2019	2020 (virtual)
Overall conference rating	4.7	4.6	4.4

Primary Aim. Formulate a health IT and analytics research agenda

CHITA offered a venue for policy makers, patien and funding agencies to share their strategic priorities, thereby gaining the opportunity to influence future research. Representatives from a dozen federal agencies or departments have participated in a variety of presentations, including as keynote speakers and panel participants. Furthermore, policymakers were able to respond to research presentations through both formal and informal discussions. These sessions are intended to identify policy-relevant research questions while fostering an ongoing dialogue consistent with a learning health system.

[1] All evaluation tables are scored on a 5-point Likert scale with 5 = Excellent or Very Satisfied, 3 = Neutral, and 1 = Poor or Very Unsatisfied.

Academic presenters were encouraged to discuss the policy and practice implications of their findings, while policy and practice speakers identified for participants what knowledge gaps they experience that can benefit from scientific research.

Clinician leaders from health systems, government officials, and industry innovators shared their strategic research priorities. Audience questions and comments were documented. A session led by senior researchers to synthesize a research agenda was performed, and participants were surveyed for priority future research areas. This information was distilled to identify common themes, priority areas and gaps.

Table 3. Satisfaction with keynotes and panels (the primary mechanism for practitioners and policymakers)

Conference Year	2018	2019	2020
Satisfaction with Keynotes and Panels	4.2	4.4	4.5

Participant Comments:

"I really enjoyed the keynotes and think the format of having these keynotes is very important to continue. I also liked the time distribution to have at least one morning and two lunches devoted to keynotes. They increase the knowledge base and getting the trends from non-academics."

"Got a lot of helpful feedback during CHITA and was able to draw some inspiration/hints for ongoing work."

Sub-Aim 1: Empower the next generation of Health IT and analytics researchers

Building health IT and analytics research capacity is critical for the future of the healthcare system. CHITA provided opportunities to train new health IT researchers. The program committee deliberately selected participants from a variety of career stages. Each year, dozens of doctoral students and new investigators are involved in presentations and discussions; furthermore, the committee members make a point of providing extensive feedback on new investigator research.

Since 2015, we have hosted a Doctoral Consortium. This provided an opportunity for doctoral students to receive feedback on their research, network and discuss career issues. PhD students and recent post-docs working on research in areas such as health information systems, health economics, clinical fields, and health policy have attended; which fostered multi-disciplinary conversations. A total of 24 students participated in the doctoral consortium in 2018-2020, with slightly fewer than average during virtual CHITA 2020. Tables 4 and 5 provide evaluation results regarding experiences for emerging health IT researchers and students.

Table 4. Opportunities for less experienced researchers

Conference Year	2018	2019	2020
How would you rate the opportunities for new researchers?	4.4	4.6	4.6

Table 5. Satisfaction with Doctoral Consortium

Conference Year	2018	2019	2020
Overall satisfaction with the doctoral consortium	3.8	4.6	5.0

Participant Comments:

"It was wonderful meeting professors and faculty from many different universities"

"It helped me to gain insight into the healthcare IT industry and showed me the various opportunities that can be explored to make a career in the same field."

Sub-Aim 2. Foster a cross-disciplinary research community

Research surrounding the design, implementation, and use of digital healthcare systems and analytics have been actively explored in diverse fields such as health services research, economics, informatics, nursing, medicine, pharmaceutical science, computer science, public health, and business. These disciplines often operate independently. CHITA provided an opportunity for these related but often separate research communities to convene and share research, exchange ideas, learn about current policy and practitioner issues, and to foster a community-driven research agenda. Table 6 lists participants' satisfaction rating of the cross-disciplinary nature of CHITA demonstrating high marks.

Table 6. Satisfaction with cross-disciplinary nature of CHITA

Conference Year	2018	2019	2020
The opportunity for interaction with researchers from a variety of disciplines	4.5	4.4	4.4

Participant Comments:

"I learned nuances about how methods were applied and adjusted my research"

"I expect to collaborate with several different attendees"

"It has given me ideas for potential healthcare delivery innovation in the Military Health System."

Sub-Aim 3: Disseminate knowledge

CHITA provided a productive forum for the dissemination of health IT and analytics research. Each year, this conference has attracted researchers and students from more than 40 research institutions in addition to government, clinical, patient, and industry representatives.

This provided an opportunity for direct dissemination for research presentations and practitioner experiences. All conference extended abstracts and presentation decks are made available to participants for download, with data available publicly including Proceedings with a research agenda, data catalog of data applied in CHITA presented work, and Academy Health ARM poster summarizing the research trends and gaps needing further research.

These Proceedings were released annually via the open access SSRN research network and as a poster at ARM presenting CHITA's research agenda findings. The 10th CHITA Proceedings was listed on SSRN's Top Ten download list for: Decision Science. The conference is highlighted via multiple press releases and social media postings -- in 2020, 102 media outlets picked up the Smith School CHITA press release with a total potential audience of ~ 111 million (See Appendix D. Media Outlet Distribution and Reach).

As Table 6 details, participants have been very satisfied with CHITA as a forum for dissemination of new research.

Table 7. Satisfaction with CHITA as a forum for dissemination of new research

Conference Year	2018	2019	2020
How satisfied are you with the conference as a venue for disseminating research?	4.4	4.3	4.5

Participant Comments:

"We are planning to be smarter about artificial intelligence programs for our patients around their disease risk."

"It was extremely useful for me. It helped me gain a direction of thought for my research interests in health informatics."

"It helped me personally to discuss with other health IT researchers and learn much more about the US healthcare context."

Overall Organization

The two-day live conference (2018, 2019) and three-day virtual conference (2020) experience is the culmination of substantial planning and organizing by the Center for Health Information and Decision Systems. The conference organizers consistently provided an experience that is not only intellectually stimulating, but also demonstrates excellence in operational issues. Over the past three years there were 373 participants (124 on average), including118 students (39 on average), 199 organizations (66 on average), and 137 papers (46 on average).

Table 8. Volume measures

	2018	2019	2020
Attendees	133	125	115
Organizations	67	71	61
Papers	45	47	45
Students	33	39	46

Additionally, as shown in Table 9, the goal of effectively managing this volume with a small team has been achieved; the conference was ranked highly in its satisfaction with operations and processes by participants.

Table 9. Satisfaction with conference venue and operations

Conference Year	2018	2019	2020
Satisfaction the conference venue and operations	4.3	4.6	4.5
Satisfaction with the registration process	4.7	4.7	4.7

Participant Comments:

"One of the best virtual conferences I've attended this year"

"Had a wonderful experience at CHITA. Will submit papers to it again next year."

"The event was VERY well run. Everything was on schedule. Very much appreciated!"

Conclusions

CHITA was motivated by the widely experienced gap in multi- and trans-disciplinary interactions among the academic, practitioner, and policy communities who are collectively seeking to understand how can digital healthcare and analytics play an instrumental role in safe, fair and effective healthcare practice and delivery.

As our nation and more broadly, the global community tackles the next set of healthcare challenges including the ongoing battle with COVID-19 and other healthcare and public health crises, digital healthcare technologies and analytics will continue to play a significant role. High-quality integration of health IT and analytics into care delivery systems requires attention to a complex set of technical, economic, organizational, behavioral, and policy concerns. As such, no single academic silo can effectively solve these complex problems, and CHITA provided a forum for cross-pollination of ideas.

As demonstrated by the presentations and panels featured at the conference, CHITA has been responsive to the questions raised in AHRQ's digital healthcare research portfolio about how the evolving digital healthcare ecosystem can best advance the quality, safety, and effectiveness of healthcare for patients and their families. CHITA has offered and will continue to offer important insights for stakeholders across the healthcare ecosystem, including an annual research agenda to further research and translation in healthcare using digital health tools, methods, and analytics. With the rapid advances in cloud computing, developments in artificial intelligence, and increased availability of healthcare data, there is the promise of revealing new patterns and insights that were hitherto hidden and to illuminate more personalized care pathways attuned to patient values and preferences.

In conclusion, CHITA has developed a strong brand and is creating significant value for attendees, who continue to return each year. CHITA is positioned in a very unique niche that is not addressed, to the best of our knowledge, by any other academic-focused conference. CHITA has enabled the development of human capital in the form of training the next generation of

health IT scholars in a constructive setting, and provided a research agenda to inform a learning health system around the topic of health IT and analytics.

V. List of Publications and Products

All conference extended abstracts and presentation decks are made available to participants for download, with data products available publicly including:

- CHITA Proceedings (2018, 2019, 2020, respectively)

Agarwal, Ritu and Gao, Guodong (Gordon) and Crowley, Kenyon and McCullough, Jeffrey, Proceedings of the 9th Conference on Health IT & Analytics (CHITA 2018) (February 1, 2019). Available at SSRN: https://ssrn.com/abstract=3489980.

Agarwal, Ritu and Gao, Guodong (Gordon) and Crowley, Kenyon and McCullough, Jeffrey, Proceedings of the 10th Conference on Health IT & Analytics (CHITA 2019) (July 8, 2020). Available at SSRN: https://ssrn.com/abstract=3646594.

Agarwal, Ritu and Gao, Guodong (Gordon) and Crowley, Kenyon and McCullough, Jeffrey, Proceedings of the 11th Conference on Health IT & Analytics (CHITA 2020) (May 20, 2021). Available at SSRN: https://ssrn.com/abstract=3850331.

- CHITA 2018-2020 Research Data Catalogs, available at https://www.rhsmith.umd.edu/centers-excellence/center-health-information-and-decision-systems/initiatives-programs/chita/content

- CHITA conference content, including ARM posters, available at https://www.rhsmith.umd.edu/centers-excellence/center-health-information-and-decision-systems/initiatives-programs/chita/content

Appendix A. Participating Organizations

2018

Amazon	United Solutions Group
Ana G Mendez University System	Universität Bocconi
Arizona State University	University at Buffalo
A-TEK inc.	University of Alabama
Benjamin Franklin Institute of Technology	University of Applied Sciences Neu-Ulm
Centers for Disease Control and Prevention	University of Arizona
Children's National	University of California Irvine
College of William and Mary	University of Central Florida
Cornell University	University of Connecticut
Federal Trade Commission	University of Illinois
Florida Atlantic University	University of Illinois Urbana Champaign
Florida International University	University of Maryland
George Washington University	University of Massachusetts
Hofstra University	University of Michigan
IBM	University of Minnesota
Indiana University	University of New Hampshire
Inovalon	University of New York
Johns Hopkins University	University of Notre Dame
Lancaster University	University of Oklahoma
Lehigh University	University of Pennsylvania
Lexis Nexis Risk Solutions	University of Pittsburgh
McGill University	University of Rochester
MedStar Health Research Institute	University of South Florida
Michael Best Strategies	University of Texas at Austin
Neu-Ulm University	University of Texas at Dallas
Northeastern University	University of Toronto
Rensselaer Polytechnic Institute	University of Washington
Rochester Institute of Technology	Vheda Health
Smeal College of Business	Virginia Commonwealth University
Southern Methodist University	Virginia Polytechnic Institute and State University
SUNY at Buffalo	Virta Health
Temple University	Worcester Polytechnic Institute
U.S. Dept of Health and Human Services	Yale University
Unissant Inc.	

2019

Accenture Federal Services	North Carolina State University
Anderson Healthcare Consulting LLC	Northrop Grumman
Arizona State University	Optum
Beijing Institute of Technology	Parkland Center for Clinical Innovation (PCCI)
Ben-Gurion University of the Negev	Purdue University
Bentley University	Saint Louis University
Bronson Healthcare Group	Stanford University
Clemson University	Temple University
Curate Partners	Textpert
CVP	The University of Alabama
CVS Health Digital	The University of Texas at Austin
Emory University	The University of Texas at Dallas
Extreme Systems	Tulane University
Florida International University	University at Buffalo
Fordham University	University of Arizona
George Mason University	University of Central Florida
George Washington University	University of Connecticut
Georgia State University	University of Hawaii
IBM	University of Illinois
Indiana University	University of Maryland
Infosys Public Services	University of Minnesota
Initiate Government Solutions	University of Oklahoma
Inovalon	University of Pennsylvania
Jinan University	University of Pittsburgh
Johns Hopkins Bloomberg School of Public Health	University of Rochester
Johns Hopkins Carey Business School	University of South Florida
KAIST College of Business	University of Virginia
Maryland Health Care Commission	University of Washington
Mathematica	UPMC Health Plan and UPMC Enterprises
McCombs School of Business	Vanderbilt University
McGill University	Virginia Tech
MedStar Health Research Institute	Vulcan Enterprises LLC
Microsoft Federal Health	Welldoc
NCATS	Western Michigan University
Ne-Ulm University	William & Mary
NIH	

2020

Bentley University	Temple University
Booz Allen Hamilton	Thomas Jefferson University Hospital
Copenhagen Business School	Tsinghua University
Emory University	UC Berkeley
George Mason University	UMD Institute for Governmental Service & Research
George Washington University	University at Buffalo, SUNY
Harvard University	University of Applied Science Neu-Ulm
Hofstra University	University of Arizona
Hong Kong University of Science and Technology	University of California, Irvine
IEOR Department, Columbia University	University of Central Florida
Indiana University	University of Delaware
Infosys Public Services	University of Houston
Inovalon	University of Illinois at Urbana-Champaign
Iowa State University	University of Maryland
Johns Hopkins	University of Maryland Baltimore County
Lehigh University	University of Maryland School of Medicine
Leonard Davis Institute of Health Economics	University of Michigan
LifeBridge Health	University of Minnesota
Marist College	University of North Carolina Greensboro
McGill University	University of Oklahoma
MedStar Health	University of Pennsylvania
Miami University	University of Pittsburgh
National University of Singapore	University of Rochester
Neu-Ulm University of Applied Sciences	University of Southern California
Northeastern University	University of Texas at Austin
Ono Academic College	University of Texas at Dallas
RAND	University of Toronto
Rutgers University	University of Washington
Saint Louis University	University of Wisconsin-Madison
Stevens Institute of Technology	Virginia Commonwealth University
	Virginia Tech

Appendix B. 2020 Call for Papers

CHITA 2020

CONFERENCE ON HEALTH IT AND ANALYTICS

Call for Submissions

11th Annual Conference on Health IT and Analytics (CHITA ONLINE!) October 8-10, 2020

go.umd.edu/CHITA2020

Chair: Ritu Agarwal

Program Co-Chairs: Guodong (Gordon) Gao and Jeffrey S. McCullough

Message from the conference chairs

Over the past few weeks, we have been closely monitoring and evaluating the situation around COVID-19 to ensure we are taking the necessary measures to protect the health and wellbeing of CHITA attendees. As a result, we have made the difficult but important decision to make CHITA 2020 an online event this year.

While we are disappointed that we will not be together in-person with our community this year, we are excited to host CHITA 2020 online. We are currently working to re-imagine and create a vibrant virtual conference that will include keynote speakers, panelists, breakouts, networking, and more.

We are pleased to announce the call for submissions to the 11th Annual Conference on Health IT and Analytics (CHITA), which will be held online.

CHITA is an annual research summit and doctoral consortium that gathers prominent scholars in a multidisciplinary setting. CHITA focuses on the increasing role, importance and impact of analytics and health information technology in improving individual and population health, and health system quality and performance. Each year, the conference attracts over 100 scholars and thought leaders from more than 40 institutions. CHITA provides a forum for researchers to disseminate their work and network within a growing and vibrant community. This conference fosters collaboration between academia, government, and industry to bridge research, policy, and practice.

The online conference dates include:
1. Pre Conference Doctoral Consortium: Wednesday, October 7th, 9:00 a.m. 12:00 p.m.
2. Day 1, Thursday, October 8th, 9:00 a.m. 12:00 p.m.
3. Day 2, Friday, October 9th, 9:00 a.m. 12:00 p.m.
4. Day 3, Saturday, October 10th, 9:00 a.m. 12:00 p.m.

The conference is hosted by the Center for Health Information and Decision Systems (CHIDS) at the Robert

H. Smith School of Business, University of Maryland. CHIDS was established in 2005, and is the first academic research center focused on health information and decision systems in a leading business school. CHITA is produced in partnership with the University of Michigan School of Public Health with support from the Agency for Healthcare Research and Quality (AHRQ).

Papers are solicited on a wide range of topics including, but not limited to: Health IT's adoption and impact; Artificial Intelligence (AI) for healthcare; Healthcare analytics and big data; Health information exchange and interoperability; New IT-enabled organizational forms and delivery models; mHealth and patient empowerment; and Quality transparency and public reporting. There is special interest this year in the following topics: AI applications for healthcare; Adoption and integration of analytics; Priority populations; Population health management; Cybersecurity; Behavior (both of providers and patients).

Please submit a brief abstract (one page, 500 word max) by **Friday, August 21, 2020** (mandatory). You may optionally submit an extended abstract of no more than 5 pages (11-pt font, one-inch margins on four sides, double-spaced) or a full manuscript at go.umd.edu/EasyChair in addition to the required brief abstract. Submissions will be reviewed for novelty, rigor, and policy impact. Decisions will be sent to authors no later than **Monday, Friday, September 14, 2020**. The conference will include full presentations, research round tables, and research panels (which feature several brief presentations). As in the past, CHITA will give awards for Best Paper, Best student-authored Paper, and Young Researcher. The latter two awards are given to papers with either a student or junior researcher as the lead author. To be considered for awards, full papers should be submitted at go.umd.edu/EasyChair by **Monday, September 28, 2020.**

For further information and updates, including about the Doctoral Consortium program, please check out go.umd.edu/CHITA2020. Programs and photo albums of previous years are available on the conference website for your perusal. We look forward to your participation. Have questions? Contact us at chita@umd.edu.

*Note: CHITA does not assume copyright over work accepted for presentation. Conference abstract Proceedings will be indexed, with authors able to optionally participate or not.

About the Center for Health Information & Decision Systems

The *Center for Health Information & Decision Systems (CHIDS)* is an academic research center based in the Decision, Operations & Information Technologies (DO&IT) department at the Robert H. Smith School of Business, which collaborates closely with industry, government, and other key health system stakeholders. The research at CHIDS seeks to understand how digital technologies can be more effectively deployed to address outcomes such as quality, efficiency in healthcare delivery, patient safety, and a reduction in health disparities. CHIDS offers the benefit of world-class research staff and renowned scholars in healthcare analytics, machine intelligence, and health information technology design, adoption, and evaluation. CHIDS is a pioneer in the study of digitally enabled health system transformation, widely known for its thought leadership and research collaborations. On the web at go.umd.edu/chids.

Appendix C. Award Winners

Best Papers

2020: Disregarding Modifying or Adopting: How Medical Experts Incorporate AI Recommendations into Patient Care Decisions.
By Jeffrey Clement (University of Minnesota), Yuqing Ren (University of Minnesota) and Shawn Curley (University of Minnesota)

2019: How do Humans Interact with Algorithms? Experimental Evidence from Health Insurance.
By Kate Bundorf (Stanford University), Maria Polyakova (Stanford University) and Ming Tai-Seale (University of California San Diego)

2018: The Effect of Predictive Analytics-Driven Interventions on Healthcare Utilization,
By Guy David (University of Pennsylvania), Aaron Smith-McLallen (Independence Blue Cross) and and Benjamin Ukert (University of Pennsylvania)

Best Student-Authored Papers

2020: The Impact of Quality Feedback on Hospital IT Safety Improvement
By A Jay Holmgren (Harvard Business School)

2019 (dual winners):
How Information Technology Can Help in the Fight Against an Opioid Epidemic: An Empirical Analysis of the Effect of E-Prescribing on Opioid Overdoses.
By Nakyung Kyung (Korea Advanced Institute of Science and Technology) and Sanghee Lim (Johns Hopkins University)

Drug Abuse and the Internet: Evidence from Craigslist.
By Jiayi Liu (Emory University) and Anandhi Bharadwaj (Emory University)

2018: The Complementarity of Health Information and Health IT for Reducing Opioid-Related Mortality and Morbidity.
By Lucy Xiaolu Wang (Cornell University)

Appendix D. Media Outlet Distribution and Reach

CHITA 2020 Media Outreach and Coverage

News Release to Announce CHITA 2020 "Maryland Smith's Conference on Health IT & Analytics Goes Virtual Oct. 8-10" - https://www.prnewswire.com/news-releases/maryland-smith-chids-conference-on-health-it--analytics-goes-virtual-oct-8-10-301142069.html

- Picked up/posted at 102 outlets
- 111M total possible audience

News at Smith - Maryland Smith-CHIDS Conference on Health IT & Analytics Goes Virtual Oct. 8-10 (Views/metrics NA) - https://www.rhsmith.umd.edu/news/maryland-smith-chids-conference-health-it-analytics-goes-virtual-oct-8-10 *

*Same release separately distributed to Health IT/Policy outlets

*A media advisory was sent to journalists' calendars hosted by:

- Associated Press - daybook@ap.org
- FIND Washington Daybook (formerly known as Federal News Service) - agenda@find-inc.com
- Reuters - dcdaybook@yahoo.com
- National Journal Daybook: -- service@nationaljournal.com

Post Event Recap Story

News at Smith (views/engagement data NA): "CHITA 2020: How to Better Manage the Pandemics and Speed Up AI Adoption in Healthcare" https://www.rhsmith.umd.edu/news/chita-2020-how-better-manage-pandemics-and-speed-ai-adoption-healthcare ... Same article featured in the Smith Brain Trust weekly e-newsletter to about 40,000 subscribers including Maryland Smith students, faculty/staff, alumni and donors/friends, plus UMD leaders among others.

CHITA 2019 Media Outreach and Coverage

Advance story at Maryland Smith's News at Smith website: https://www.rhsmith.umd.edu/news/conference-health-it-analytics-set-nov-15-16-metro-dc

Smith Brain Trust Tweet of advance story: https://twitter.com/SmithBrainTrust/status/1184799203417042945

PR Newswire distribution on Oct. 16, 2019 of advance news release: "Conference on Health IT & Analytics Set for Nov. 15-16 in Metro D.C.": https://www.prnewswire.com/news-releases/conference-on-health-it--analytics-set-for-nov-15-16-in-metro-dc-300939736.html …(see VR-Release 20191... for more metrics). Distributed to DC-region wide healthcare-, policy- and general-news outlets

A media advisory (abbreviated) sent on Nov. 7, 2019 to:

- Associated Press
- FIND Washington Daybook (formerly known as Federal News Service)
- Reuters
- National Journal Daybook

Post-event recap story:
Posted at News at Smith: "CHITA 2019: Insights from the Health Industry Trenches and Academic Labs": https://www.rhsmith.umd.edu/news/chita-2019-insights-health-industry-trenches-and-academic-labs
Same article was in the Dec. 12, 2019 **Smith Brain Trust weekly e-newsletter** distributed to 40,000 subscribers including Maryland Smith students, faculty/staff, alumni and donors/friends, plus UMD leaders among others

CHITA 2018 Media Outreach and Coverage

Advance Story/Release: "National Experts to Speak at CHIDS Conference on Health IT and Analytics" – https://www.rhsmith.umd.edu/news/experts-speak-chids-conference-health-it-and-analytics

Post Event Highlights story: "CHITA 2018 Experts put Blockchain, Artificial Intelligence in Context" - https://www.rhsmith.umd.edu/news/chita-2018-experts-put-blockchain-artificial-intelligence-context

A media advisory was sent on Oct. 14, 2018, to

- Associated Press
- FIND Washington Daybook (formerly known as Federal News Service)
- Reuters
- National Journal Daybook